

Bulletin
Pennsylvania Department of Agriculture
Harrisburg, Pa.

Vol. 20

NOVEMBER-DECEMBER, 1937

No. 8

GENERAL BULLETIN, 547
FERTILIZER REPORT
1936



J. HANSELL FRENCH, *Secretary of Agriculture*

ELMER E. HARTER, JR., *Director of Foods and Chemistry*
Bureau of Foods and Chemistry

Published bi-monthly by direction of the Secretary. Entered as second class matter, March 22, 1918, at the Post Office at Harrisburg, Pa., under the Act of June 6, 1900.

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FERTILIZER REPORT - - 1936

Introduction

The Pennsylvania Fertilizer Law, Act of May 1, 1909, with subsequent amendments, requires the annual registration of all products intended for fertilizing or manuring purposes. The Act specifically exempts the dung of domestic animals, marl, lime and wood ashes.

Section 1 requires the following information to be shown on sacks or attached cards: (a) The number of pounds of fertilizer contained in the package; (b) the name, brand or trade mark under which the fertilizer is sold; (c) the name and principal address of the manufacturer, importer or other person putting the fertilizer on the market in this Commonwealth; (d) guarantee for nitrogen; (e) guarantee for total phosphoric acid, except in mixed and superphosphate fertilizers; (a) guarantee for available phosphoric acid; (g) guarantee for potash soluble in distilled water.

In the case of Mixed Fertilizer, all guarantees must be in even units, no fractions being permitted, and they further must be guaranteed to contain at least 16 units of plant food, based upon guarantees for nitrogen, available phosphoric acid and water soluble potash. The minimum amount of any one element permitted in a fertilizer is 1%.

Applications for registration are forwarded to each licensed manufacturer at the end of the calendar year, and it is necessary to report on same the preceding year's tonnage sales of each brand in order that license or registration fee can be properly computed. Tonnage sales are likewise required for brands even though they are not to be re-registered.

The Agents of the Bureau of Foods and Chemistry are authorized to obtain official samples, which together with reports giving full information for each individual sample, are forwarded direct to the Laboratory when a check of records is made to determine whether the brand is registered. Where it is found that these official samples are duly registered, an analysis is conducted to ascertain whether or not the fertilizer meets its guaranteed analysis.

During the year 1936 the agents of the Department collected 1,308 official samples and of this number 1,281 representing 561 brands, registered by 55 manufacturers were subjected to analysis and classified as follows:

	<i>Brands</i>	<i>Samples</i>
Complete Fertilizers	417	961
Ground Bone Fertilizers	13	19
Superphosphate Fertilizers	70	185
Lime Phosphate Fertilizers	12	21
Rock and Potash Fertilizers	41	82
Miscellaneous Fertilizers	8	13
Total	561	1281

BRANDS REGISTERED AND TONNAGE SALES

The registration fee for each new brand of fertilizer is \$15 and where old brands are to be re-registered, the scale of fees is as follows: 0 to 150 tons, \$15; over 150 tons to 250 tons, \$20; over 250 tons to 400 tons, \$30; over 400 tons to 500 tons, \$40; over 500 tons, \$50.

Licenses were issued to 123 manufacturers to cover sales of their brands for the year 1936. These licenses included 954 brands of which 727 were mixed fertilizers and 227 so called "base" materials, such as nitrate of soda, sulphate of ammonia, bone, etc.

The 1936 applications for registration showed that 295,048 tons of all classes of fertilizers were sold during the year 1935 (compared with 267,987 tons sold during 1934) and classified as follows: Complete Fertilizers, 214,333 tons; Ground Bone Fertilizers, 2,687 tons; Superphosphate Fertilizers, 52,890 tons; Lime Phosphate Fertilizers, 6,963 tons; Ammoniated Phosphate Fertilizers, 31 tons; Rock and Potash Fertilizers, 11,323 tons; and Miscellaneous Fertilizers, including the following: Tankage, 2,491 tons; Dried Blood, 49 tons; Nitrate of Soda, 828 tons; Potash Salts, 647 tons; Sulphate of Ammonia, 713 tons; and unclassified 2,093 tons.

The 1935 tonnage figure reveals that there was supplied 6,800 tons of nitrogen, 32,959 tons of available phosphoric acid and 13,707 tons of water soluble potash or a total of 53,466 tons of plant food. The amount of plant food is in excess of that supplied during the year 1934, namely 47,806 tons.

CONCLUSIONS

Of the 1,281 official samples analyzed, 102 or 7.96% were found to be deficient in one or more elements of plant food, compared with guarantees to the extent of .2% or more. The proportion of deficiencies is lower than that reported for the year 1935.

Considering the plant food elements separately, 61 samples or 4.76% were found to be deficient in nitrogen, 18 or 1.4% deficient in available phosphoric acid and 30 or 2.34% deficient in water soluble potash.

Of the total number of fertilizers analyzed, 961 were complete fertilizers and 97 or 10.09% were found to be deficient, 59 or 6.14% deficient in nitrogen, 16 or 1.66% in available phosphoric acid and 29 or 3.02% in water soluble potash.

Where the word "tobacco" forms a part of the brand name, the potash must not be in the form of chloride. Official samples obtained with the word "tobacco" as a part of the brand name were, upon analysis found to have the potash content in the form of sulphate.

There were no deficiencies found in the Ground Bone samples, and only 1 Superphosphate Fertilizer was deficient in available phosphoric acid, and in the Rock and Potash Fertilizers 1 sample was deficient in available phosphoric acid and 1 in water soluble potash. The 13 Miscellaneous Fertilizers included 5 samples of Nitrate of Soda, 1 of Muriate

of Potash, 3 of Cyanamid and 1 each of Sulphate and Tobacco, Calnitro, Milorganite and Soil Prep (Humus). Of this class 2 samples were found to be deficient in nitrogen.

The average unit values, estimated from the average retail selling prices, were as follows: Nitrogen \$2.29, Available Phosphoric Acid 97c, Water Soluble Potash \$1.66.

The average retail selling price for Complete Fertilizers was \$27.81 a ton, compared with \$28.05 for 1935.

Considering the 1936 fertilizer inspection, it will be noted that 7.96% of all samples collected were found to be deficient, which is an improvement over the previous year's inspection. Many of the samples were not seriously deficient and were, to a large extent, balanced by over-ages in other elements, so that there was no monetary loss to the consumer. Action was taken in those cases where the deficiencies were found to be of a serious nature.

TABLE I—DEFICIENCIES

Class of Fertilizers	Samples	Number Deficient in		
		Nitrogen	Available Phosphoric Acid	Potash
Complete Fertilizers	961	59	16	29
Ground Bone Fertilizers	19	....	....	....
Superphosphate Fertilizers	185	....	1	....
Lime Phosphate Fertilizers	21	....	....	....
Rock and Potash Fertilizers	82	....	1	1
Miscellaneous Fertilizers	13	2	....	....
Total	1281	61	18	30

TABLE II—AVERAGE ANALYSES AND RETAIL PRICES

Form of Plant Food	Complete Fertilizers	Ground Bone Fertilizers	Super-phosphate Fertilizers*	Rock and Potash Fertilizers
	Per Cent	Per Cent	Per Cent	Per Cent
Nitrogen	3.06	3.58	.....	.....
Total Phosphoric Acid .....	.....	23.32	.....	.....
Available Phosphoric Acid	10.56	.....	18.25	12.70
Potash	6.37	.....	.....	6.49
Selling Price 1936	\$27.81	\$40.63	\$17.64	\$23.08
Selling Price 1935	\$28.05	\$42.33	\$17.57	\$22.86

* Excluding Lime Phosphates.

KEY TO TABLES

The following tables include the results of chemical analyses of the official samples. Each sample was given a chemist's number and analyzed for the element or elements guaranteed.

Where two or more samples of the same brand were analyzed and guarantees sustained, the results were averaged. Where a discrepancy was found the brand is listed singly. The chemist's numbers after the brand name, indicate the number of samples analyzed and averaged.

The asterisk (*) indicates those samples found to be deficient to the extent of .2% or more.

Table III. Complete Fertilizers, furnishing Nitrogen, Available Phosphoric Acid and Potash.

Table IV. Ground Bone Fertilizers, furnishing Nitrogen, and Total Phosphoric Acid.

Table V. Superphosphate and Lime Phosphate Fertilizers, furnishing Available Phosphoric Acid.

Table VI. Rock and Potash Fertilizers, furnishing Available Phosphoric Acid and Potash.

Table VII. Miscellaneous Fertilizers, including Nitrate of Soda, Muriate of Potash, Cyanamid, Phosphate and Tobacco, Calnitro, Milorganite and Soil Prep (Humus).

Warning

* "Section 5. Any person or persons selling, offering, or exposing for sale, any commercial fertilizer or any brand of the same, having a distinct trade-name, without the analysis required by section one of this act, or with an analysis stating that it contains a larger percentage of any one or more of the above-named constituents than is contained therein, or for the sale of which all the provisions of sections two and three have not been complied with, or any person violating any of the provisions of section four of this act, shall be guilty of a misdemeanor, and, on conviction, shall be sentenced to pay a fine of not less than twenty-five nor more than one hundred dollars for the first offense, and not less than two hundred dollars for each subsequent offense....."

The Department of Agriculture, as the agency charged by the Legislature with the enforcement of the provisions of the Fertilizer Law, copies of which are available upon request, insists upon strict compliance therewith.

* Act of May 1, 1909, P. L. 344 as amended.

TABLE III. ANALYSES OF COMPLETE FERTILIZERS—FURNISHING NITROGEN, PHOSPHORIC ACID AND POTASH

MANUFACTURER AND BRAND NAME	NITROGEN		AVAILABLE PHOSPHORIC ACID		POTASH		
	Found	Guar.	Found	Guar.	Found	Guar.	As Muriate
ACME GUANO CO., Baltimore, Md.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.
Acme 1-10-5 (281; 1044)	1.17	1.00	10.27	10.00	5.29	5.00	----
Acme 2-8-10 (291; 1051)	2.10	2.00	8.49	8.00	10.31	10.00	----
Acme 2-9-5 (286; 1048; 1102)	2.17	2.00	9.20	9.00	5.30	5.00	----
Acme 2-12-4 (293; 1046; 1106)	2.18	2.00	12.27	12.00	4.87	4.00	----
Acme 2-12-5 (290; 1105)	2.17	2.00	12.56	12.00	5.52	5.00	----
Acme 2-12-6 (1050)	2.30	2.00	12.27	12.00	6.58	6.00	----
Acme 3-12-6 (283; 1047)	3.06	3.00	12.12	12.00	6.13	6.00	----
Acme 4-8-7 (289)	4.06	4.00	8.69	8.00	7.47	7.00	----
Acme 4-12-4 (287)	4.02	4.00	12.16	12.00	4.96	4.00	----
Acme 5-8-5 (288)	*3.64	5.00	9.22	8.00	*4.40	5.00	----
Acme Vitaflor (1109)	4.84	4.00	*7.67	8.00	6.93	5.00	----
THE AMERICAN AGRICULTURAL CHEMICAL CO., New York, N. Y.							
AA Acme Fertilizer 1-10-5 (170; 422; 570)	1.07	1.00	10.30	10.00	5.17	5.00	----
AA Champion Fertilizer 2-9-5 (163; 421; 573; 749; 929; 990; 1270; 1306)	2.06	2.00	9.14	9.00	5.28	5.00	----
AA Champion Fertilizer 2-9-5 (984)	*1.75	2.00	9.08	9.00	5.44	5.00	----
AA Climax Fertilizer 3-12-6 (193; 232; 497; 568; 850; 904; 1258)	2.99	3.00	12.17	12.00	6.29	6.00	----
AA Climax Fertilizer 3-12-6 (691)	*2.51	3.00	12.61	12.00	6.43	6.00	----
AA Excelstor Fertilizer 4-8-10 (66)	3.98	4.00	8.00	8.00	10.12	10.00	----
AA Farmers Friend Fertilizer 2-12-4 (67; 356; 445; 492; 563; 571; 826; 851; 899)	2.10	2.00	12.28	12.00	4.28	4.00	----
AA Gladiator Fertilizer 4-8-7 (169; 192; 234; 498; 572; 983; 1260)	3.97	4.00	8.23	8.00	7.24	7.00	----
AA Horse Shoe Fertilizer 2-12-6 (907)	2.09	2.00	12.05	12.00	6.66	6.00	----
AA Old Hickory Fertilizer 2-8-10 (236; 354; 496; 569; 855; 905)	2.08	2.00	8.31	8.00	10.61	10.00	----
AA Pathfinder Fertilizer 4-12-4 (130; 167; 199; 900; 981)	4.03	4.00	12.30	12.00	4.34	4.00	----
AA Pathfinder Fertilizer 4-12-4 (194)	4.52	4.00	*11.74	12.00	4.76	4.00	----
AA Red Dog Fertilizer 2-9-5 (53; 304; 355; 493; 817; 857; 909)	2.12	2.00	9.40	9.00	5.47	5.00	----
AA Red Star Fertilizer 5-10-5 (168; 982; 1257)	4.95	5.00	10.19	10.00	5.32	5.00	----
AA Sweepstakes Fertilizer 3-8-10 (824)	3.00	3.00	8.00	8.00	10.46	10.00	----
AA Two in One Fertilizer 4-16-4 (68; 129; 692; 757; 823)	4.16	4.00	16.44	16.00	4.52	4.00	----
Agrico for Corn 3-12-6 (128; 166; 195; 238; 466; 494; 821; 1271)	3.06	3.00	12.52	12.00	6.33	6.00	----
Agrico for Fruit 9-6-6 (131; 1255)	9.12	9.00	6.08	6.00	6.62	6.00	----
Agrico for Gardens 5-10-5 (134; 1269)	5.02	5.00	10.60	10.00	5.23	5.00	----
Agrico for Grain 2-12-4 (162; 176; 389; 426; 465; 574; 756; 816; 846; 856; 903; 931; 1264; 1307)	2.10	2.00	12.25	12.00	4.19	4.00	----
Agrico for Pastures and Top Dressing 7-6-6 (233; 353; 758; 1266)	6.99	7.00	6.42	6.00	6.14	6.00	----
Agrico for Pastures and Top Dressing 7-6-6 (136)	*6.50	7.00	6.57	6.00	7.51	6.00	----
Agrico for Potatoes 4-8-7 (164; 177; 197; 239; 305; 390; 423; 467; 575; 1267)	4.01	4.00	8.31	8.00	7.29	7.00	----
Agrico for Potatoes 4-8-10 (235)	4.01	4.00	8.57	8.00	12.52	10.00	----
Agrico for Tobacco 4-6-8 (590)	4.20	4.00	6.89	6.00	8.05	8.00	----
Agrico for Tomatoes 4-14-6 (1256)	4.30	4.00	14.11	14.00	6.43	6.00	----
Agrico for Truck 5-10-5 (165; 196; 198; 303; 425; 549; 759; 939; 1265)	5.07	5.00	10.26	10.00	5.27	5.00	----
Agrico for Truck 5-10-5 (237)	5.01	5.00	*9.52	10.00	5.39	5.00	----
Agrico for Wheat 2-12-6 (933)	2.16	2.00	12.08	12.00	6.62	6.00	----
Bowker's Sure Crop Fertilizer 1-10-5 (686; 1305)	1.03	1.00	10.18	10.00	5.10	5.00	----
Lietser's Golden Crown Fertilizer 2-8-10 (519)	2.03	2.00	8.19	8.00	10.22	10.00	----
Patapeco Coon Brand Fertilizer 1-10-5 (62; 446; 908)	1.08	1.00	10.36	10.00	5.32	5.00	----
ARMOUR FERTILIZER WORKS, Baltimore, Md.							
Armour's Big Crop Fertilizer 2-8-10 (475; 924; 935; 976; 1004)	2.03	2.00	8.45	8.00	10.70	10.00	----
Armour's Big Crop Fertilizer 2-8-10 (443)	2.92	2.00	8.12	8.00	*8.98	10.00	----
Armour's 81g Crop Fertilizer 2-9-5 (32; 96; 314; 323; 928; 956; 999)	2.07	2.00	9.37	9.00	5.21	5.00	----
Armour's 81g Crop Fertilizer 2-12-2 (838)	2.13	2.00	11.81	12.00	2.61	2.00	----
Armour's 81g Crop Fertilizer 2-12-4 (97; 189; 219; 321; 643; 696; 814; 925; 954; 1000; 1298)	2.09	2.00	12.53	12.00	4.16	4.00	----
Armour's 81g Crop Fertilizer 2-12-6 (840; 923; 955; 1001; 1101)	2.09	2.00	12.34	12.00	6.24	6.00	----
Armour's 81g Crop Fertilizer 2-16-8 (1128)	2.23	2.00	17.08	16.00	8.85	8.00	----
Armour's 81g Crop Fertilizer 3-12-6 (34; 442; 975; 1002; 1100)	3.14	3.00	12.18	12.00	6.45	6.00	----
Armour's 81g Crop Fertilizer 4-8-7 (33; 220; 444; 581; 617; 697; 953; 1300)	3.98	4.00	8.48	8.00	7.86	7.00	----
Armour's 81g Crop Fertilizer 4-8-7 (96)	*3.73	4.00	8.39	8.00	7.09	7.00	----
Armour's 81g Crop Fertilizer 4-8-7 (815)	*3.50	4.00	8.66	8.00	7.67	7.00	----
Armour's 81g Crop Fertilizer 4-8-7 (1003)	*3.69	4.00	8.53	8.00	7.11	7.00	----
Armour's 81g Crop Fertilizer 4-12-4 (217; 952)	4.00	4.00	12.53	12.00	4.58	4.00	----
Armour's 81g Crop Fertilizer 4-12-4 (324)	*3.74	4.00	12.12	12.00	4.04	4.00	----
Armour's Big Crop Fertilizer 4-16-4 (218; 221; 695; 934; 1006)	4.03	4.00	16.26	16.00	4.23	4.00	----
*Deficient							

TABLE III. ANALYSES OF COMPLETE FERTILIZERS—FURNISHING NITROGEN, PHOSPHORIC ACID AND POTASH

MANUFACTURER AND BRAND NAME	NITROGEN		AVAILABLE PHOSPHORIC ACID		POTASH		
	Found	Guar.	Found	Guar.	Found	Guar.	As Muriate
Armour's Big Crop Fertilizer 4-16-10 (441)	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.
Armour's Big Crop Fertilizer 5-10-5 (31; 577)	*3.38	4.00	16.95	16.00	*9.12	10.00	----
Armour's Big Crop Special 1-10-5 (1005)	5.02	5.00	10.27	10.00	5.73	5.00	----
Armour's Big Crop Special 1-10-5 (644)	1.02	1.00	10.62	10.00	5.25	5.00	----
Armour's Big Crop Special 2-9-5 (1129)	1.27	1.00	10.73	10.00	*4.42	5.00	----
Armour's Garden and Lawn Fertilizer 4-8-6 (959)	1.95	2.00	9.21	9.00	5.10	5.00	----
Armour's Special Turf Fertilizer 10-8-6 (39)	4.01	4.00	8.01	8.00	6.52	6.00	----
	9.90	10.00	8.18	8.00	6.01	6.00	----
BALTIMORE FERTILIZER COMPANY							
Baltimore, Md.							
Honest 1-10-5 (24; 917)	1.22	1.00	11.55	10.00	5.48	5.00	----
Honest 2-8-10 (14; 883)	2.38	2.00	8.65	8.00	10.25	10.00	----
Honest 2-9-5 (919)	2.26	2.00	9.66	9.00	5.30	5.00	----
Honest 4-8-7 (26)	4.29	4.00	9.04	8.00	6.96	7.00	----
Old Honey 1-12-3 (25; 920)	1.35	1.00	12.80	12.00	3.94	3.00	----
BAUGH & SONS COMPANY							
Philadelphia, Pa.							
Baugh's Advanced Growers Special (1216)	*4.44	5.00	8.08	8.00	7.12	7.00	----
Baugh's Balanced Plant Food (311; 343; 1211)	4.25	4.00	12.47	12.00	4.42	4.00	----
Baugh's Commercial Crop Compound (315; 346; 373; 384; 656; 715; 986; 1203)	2.06	2.00	8.17	8.00	10.93	10.00	----
Baugh's Commercial Crop Compound (772)	2.44	2.00	8.79	8.00	*9.75	10.00	----
Baugh's Complete Animal Base Fertilizer (344; 374; 500; 637; 704; 751; 828; 989; 1205)	2.04	2.00	9.23	9.00	5.40	5.00	----
Baugh's Corn and Oats Fertilizer (155; 310; 382; 470; 624)	2.12	2.00	12.32	12.00	2.48	2.00	----
Baugh's Double Eagle Phosphate (157; 383; 499; 589; 605; 717; 755; 1007; 1097; 1204)	2.25	2.00	12.23	12.00	4.33	4.00	----
Baugh's Double Power Fertilizer (347; 604; 987)	4.16	4.00	16.47	16.00	4.39	4.00	----
Baugh's Excelior Mixture (375; 502; 1009)	1.24	1.00	10.25	10.00	5.46	5.00	----
Baugh's Half and Half Mixture with Potash (1213)	2.03	2.00	10.25	9.00	5.95	5.00	----
Baugh's Half Century Perfection Brand (156; 299; 376; 387; 501; 602; 623; 702; 769; 1215)	4.00	4.00	8.50	8.00	7.27	7.00	----
Baugh's Old Dependable Potato Grower (588; 1206)	4.15	4.00	8.26	8.00	10.91	10.00	----
Baugh's Original Potato Guano (705)	*5.25	6.00	6.78	6.00	5.40	5.00	----
Baugh's Potato and Truck Special (703)	4.04	4.00	8.21	8.00	6.39	6.00	----
Baugh's Special Potato Manure (301; 829)	2.17	2.00	9.75	9.00	5.25	5.00	----
Baugh's The Old Stand-By (701; 752)	2.14	2.00	12.54	12.00	2.26	2.00	----
Baugh's Three-Quarter Century Perfection Brand (685; 771; 1208)	3.18	3.00	12.11	12.00	6.28	6.00	----
Baugh's Truckers Favorite (381; 474; 716)	5.05	5.00	10.30	10.00	5.29	5.00	----
Baugh's Wheat Fertilizer (753; 770; 985; 1209)	2.16	2.00	12.41	12.00	6.12	6.00	----
Baugh's 4-8-12 (471)	4.20	4.00	8.38	8.00	12.39	12.00	----
Baugh's 6-7-4 (1202)	6.39	6.00	7.14	7.00	4.10	4.00	----
HERBERT BRYANT, INCORPORATED							
Alexandria, Va.							
H. B. 1-10-5 (1133)	1.02	1.00	10.82	10.00	6.03	5.00	----
H. B. 2-8-10 (1130)	2.14	2.00	8.05	8.00	10.98	10.00	----
H. B. 4-12-4 (1131)	3.95	4.00	12.69	12.00	4.31	4.00	----
H. B. 5-10-5 (1138)	*4.79	5.00	10.40	10.00	4.92	5.00	----
H. B. Genuine Fish Phosphate and Potash 2-9-5 (1132)	1.91	2.00	9.09	9.00	5.09	5.00	----
H. B. Pure Fish Compound 3-10-5 (1134)	3.14	3.00	10.04	10.00	6.24	5.00	----
W. S. CAPLES & SON, Johnstown, Pa.							
Cambria's Potato and Truck 2-10-6 (966)	2.09	2.00	10.11	10.00	7.18	6.00	----
Cambria's Potato and Truck 2-10-6 (667)	*1.75	2.00	10.00	10.00	6.82	6.00	----
Cambria's Standard Phosphate 2-10-4 (666; 967)	2.09	2.00	10.07	10.00	4.78	4.00	----
CARLISLE FERTILIZER WORKS, INC., Carlisle, Pa.							
Carlisle 1-10-5 (12; 881)	1.47	1.00	10.20	10.00	6.33	5.00	----
Carlisle 2-9-5 (11; 880)	2.41	2.00	9.44	9.00	5.98	5.00	----
Carlisle 4-8-7 (17; 887)	4.37	4.00	8.67	8.00	9.55	7.00	----
Carlisle 5-10-5 (886)	5.55	5.00	10.40	10.00	6.10	5.00	----
CENTRAL CHEMICAL CO., INC., Baltimore, Md.							
Gipe's 2-8-10 (88)	2.10	2.00	8.80	8.00	10.27	10.00	----
Gipe's 2-9-5 (89)	2.02	2.00	9.50	9.00	5.41	5.00	----
Gipe's 2-12-6 (87)	2.75	2.00	12.04	12.00	6.07	6.00	----
Gipe's 4-8-7 (85)	4.11	4.00	9.20	8.00	7.13	7.00	----
Gro-All Crown Jewel 1-10-5 (90; 452; 476; 625)	1.15	1.00	10.35	10.00	5.59	5.00	----
Gro-All Excelior 2-9-5 (92; 334; 450; 477; 832; 859; 1060)	2.10	2.00	9.32	9.00	5.33	5.00	----
Gro-All Golden Sheaf 3-12-6 (862; 1066)	3.19	3.00	12.35	12.00	6.34	6.00	----
Gro-All Golden Sheaf 3-12-6 (91)	3.17	3.00	12.77	12.00	*5.55	6.00	----
Gro-All Grain Food 2-12-4 (16; 94; 326; 448; 460; 861; 1062)	2.23	2.00	12.60	12.00	4.55	4.00	----
Gro-All Imperial 2-8-10 (335; 627)	2.04	2.00	8.39	8.00	11.26	10.00	----
Gro-All Pomo Food 10-6-4 (252)	9.90	10.00	6.30	6.00	3.92	4.00	----
Gro-All Pomo Food 10-6-4 (119)	*9.72	10.00	7.50	6.00	4.01	4.00	----
Gro-All Potato Special 4-8-7 (95; 121; 451; 481; 626; 1065)	4.14	4.00	8.51	8.00	7.25	7.00	----
Gro-All Potato Special 4-8-7 (327)	*3.76	4.00	8.49	8.00	7.06	7.00	----

*Deficient

TABLE III. ANALYSES OF COMPLETE FERTILIZERS—FURNISHING NITROGEN, PHOSPHORIC ACID AND POTASH

MANUFACTURER AND BRAND NAME	NITROGEN		AVAILABLE PHOSPHORIC ACID		POTASH		
	Found	Guar.	Found	Guar.	Found	Guar.	As Muriate
	P.ct.	P.ct.	P.ct.	P.ct.	P.ct.	P.ct.	P.ct.
Gro-All Super Fish Brand 2-12-6 (93; 482; 650; 860; 1061)	2.07	2.00	12.19	12.00	6.64	6.00	----
Gro-All Super Special 4-16-4 (457; 863)	3.92	4.00	16.54	16.00	4.28	4.00	----
Gro-All Top Dresser 6-6-5 (449)	6.29	6.00	6.54	6.00	4.95	5.00	----
Gro-All 2-12-6 (1059)	2.02	2.00	12.34	12.00	6.39	6.00	----
Gro-All 4-12-4 (244; 461; 1067)	4.02	4.00	12.55	12.00	4.42	4.00	----
Gro-All 4-12-4 (118; 461; 1067)	4.03	4.00	*11.30	12.00	5.23	4.00	----
Gro-All 5-10-5 (83; 120; 1139)	5.04	5.00	10.46	10.00	5.47	5.00	----
Gro-All 5-10-5 (1095)	*4.64	5.00	10.27	10.00	*4.77	5.00	----
COOPERATIVE G.L.F. MILLS, INC., Buffalo, N. Y.							
G.L.F. 2-8-10 (Non-Acid) (180; 1197)	2.09	2.00	8.61	8.00	10.78	10.00	----
G.L.F. 2-8-10 (Non-Acid) (566)	2.10	2.00	8.69	8.00	*9.75	10.00	----
G.L.F. 2-12-4 (Non-Acid) (140; 181; 786; 872)	2.37	2.00	12.31	12.00	4.71	4.00	----
G.L.F. 4-8-7 (Acid) (559)	4.44	4.00	8.24	8.00	7.91	7.00	----
G.L.F. 4-8-7 (Non-Acid) (109; 182; 700; 787; 938; 1200)	4.19	4.00	8.36	8.00	7.25	7.00	----
G.L.F. 4-8-12 (Non-Acid) (106)	4.28	4.00	8.00	8.00	13.68	12.00	----
G.L.F. 4-12-4 (Non-Acid) (108; 183; 1201)	4.04	4.00	12.23	12.00	4.58	4.00	----
G.L.F. 4-12-4 (Non-Acid) (788)	*3.77	4.00	13.40	12.00	4.18	4.00	----
G.L.F. 4-12-4 (Non-Acid) (141)	4.02	4.00	*11.52	12.00	4.62	4.00	----
G.L.F. 4-16-4 (Non-Acid) (138; 188; 790)	4.14	4.00	16.38	16.00	4.67	4.00	----
G.L.F. 5-8-7 (Non-Acid) (105; 472)	5.11	5.00	8.53	8.00	8.05	7.00	----
G.L.F. 5-10-5 (Acid) (111)	5.71	5.00	10.42	10.00	6.11	5.00	----
G.L.F. 5-10-5 (Non-Acid) (139; 184; 791; 875)	5.13	5.00	10.78	10.00	5.36	5.00	----
G.L.F. 8-16-14 (Acid) (584)	*6.69	8.00	16.50	16.00	15.06	14.00	----
G.L.F. 10-20-10 (Acid) (110)	*9.00	10.00	*19.22	20.00	12.82	10.00	----
G.L.F. 10-20-10 (Acid) (585)	*9.62	10.00	20.82	20.00	10.36	10.00	----
G.L.F. Garden and Lawn Fertilizer (1196)	6.11	6.00	6.28	6.00	6.15	5.00	----
G.L.F. Gro-Leaf (Non-Acid) (473)	6.61	6.00	6.39	6.00	5.70	5.00	----
G.L.F. Vegetable Special 5-10-5 (Non-Acid) (137)	4.85	5.00	10.09	10.00	5.45	5.00	----
DAVISON CHEMICAL CORPORATION Baltimore, Md.							
Davco Homogeneous Granulated Fertilizer 2-8-10 (1170)	2.15	2.00	8.24	8.00	9.96	10.00	----
Davco Homogeneous Granulated Fertilizer 2-9-5 (835; 1027; 1302)	2.40	2.00	9.61	9.00	5.10	5.00	----
Davco Homogeneous Granulated Fertilizer 2-12-4 (767; 805; 1064)	2.31	2.00	12.75	12.00	6.16	4.00	----
Davco Homogeneous Granulated Fertilizer 2-12-6 (1068; 1142)	2.21	2.00	12.49	12.00	6.15	6.00	----
Gipe's 2-8-10 (1168)	2.10	2.00	8.26	8.00	10.34	10.00	----
Gipe's 2-9-5 (1169)	2.16	2.00	9.05	9.00	5.27	5.00	----
Gipe's 2-12-6 (1167)	2.17	2.00	12.69	12.00	6.43	6.00	----
Gipe's 4-8-7 (1165)	4.00	4.00	8.37	8.00	8.05	7.00	----
Gipe's Crown Jewel 1-10-5 (1147)	1.27	1.00	10.28	10.00	5.71	5.00	----
Gro-All Excelsior 2-9-5 (768)	2.16	2.00	9.27	9.00	5.41	5.00	----
Gro-All Golden Sheaf 3-12-6 (1149)	3.11	3.00	12.37	12.00	6.46	6.00	----
Gro-All Grain Food 2-12-4 (766; 884)	2.16	2.00	12.59	12.00	4.41	4.00	----
Gro-All Imperial 2-8-10 (780)	2.25	2.00	8.37	8.00	10.41	10.00	----
Gro-All Potato Special 4-8-7 (777)	*3.63	4.00	9.22	8.00	7.17	7.00	----
Gro-All Super Special 4-16-4 (1145)	4.01	4.00	17.22	16.00	4.36	4.00	----
Gro-All 4-12-4 (1144)	4.10	4.00	12.25	12.00	11.49	10.00	----
Hubbard Jersey Trucker 2-8-10 (1140)	2.13	2.00	8.45	8.00	*8.91	10.00	----
Hubbard Jersey Trucker 2-8-10 (763)	2.05	2.00	8.00	8.00	5.00	5.00	----
Hubbard Money Maker 2-9-5 (1146; 1301)	2.26	2.00	9.41	9.00	7.24	7.00	----
Hubbard Potato 4-8-7 (761)	4.03	4.00	8.08	8.00	4.10	4.00	----
Hubbard Special Brand 4-12-4 (1303)	3.90	4.00	12.11	12.00	4.34	4.00	----
Hubbard Fertilizer 2-12-4 (760; 1251)	2.22	2.00	12.30	12.00	6.37	6.00	----
Hubbard Fertilizer 2-12-6 (762; 1253)	2.49	2.00	12.35	12.00	6.10	5.00	----
Miller Fertilizer 1-10-5 (1016)	1.21	1.00	10.48	10.00	10.36	10.00	----
Miller Fertilizer 2-8-10 (801; 1010)	2.06	2.00	9.00	8.00	*9.55	10.00	----
Miller Fertilizer 2-8-10 (1017)	1.31	2.00	8.40	8.00	4.95	5.00	----
Miller Fertilizer 2-9-5 (1023)	2.01	2.00	9.42	9.00	4.37	4.00	----
Miller Fertilizer 2-12-4 (803; 1018)	1.98	2.00	12.53	12.00	6.05	6.00	----
Miller Fertilizer 2-12-6 (1024)	2.19	2.00	12.25	12.00	6.25	6.00	----
Miller Fertilizer 3-12-6 (1085)	3.18	3.00	12.27	12.00	5.76	5.00	----
Ober's 1-10-5 Fertilizer (1181)	1.16	1.00	10.04	10.00	10.42	10.00	----
Ober's 2-8-10 Fertilizer (1180)	2.03	2.00	6.19	8.00	5.26	5.00	----
Ober's 2-9-5 Fertilizer (1182)	2.13	2.00	9.00	9.00	6.50	6.00	----
Ober's 2-12-6 Fertilizer (1175)	2.15	2.00	12.23	12.00	6.07	6.00	----
Ober's 3-12-6 Fertilizer (1176)	3.03	3.00	12.16	12.00			
JACOB DOLD PACKING COMPANY Buffalo, N. Y.							
Dold's Special 5-12-6 (399)	5.20	5.00	12.28	12.00	7.70	6.00	----
EASTERN STATES FARMERS EXCHANGE Springfield, Mass.							
Eastern States 2-8-10 (40; 913)	2.32	2.00	8.81	8.00	11.05	10.00	----
Eastern States 2-12-6 (52)	2.43	2.00	12.49	12.00	6.54	6.00	----
Eastern States 4-8-8 (49)	4.01	4.00	9.66	8.00	8.31	8.00	----
Eastern States 4-24-12 (47; 911)	4.24	4.00	24.03	24.00	13.57	12.00	----
Eastern States 8-16-16 (45)	*7.75	8.00	16.84	16.00	16.07	16.00	----
Eastern States 8-24-8 (910)	7.90	8.00	24.20	24.00	8.79	8.00	----
Eastern States 8-24-8 (43)	*7.75	8.00	24.15	24.00	8.23	8.00	----
Eastern States 12-4-4 (46)	12.01	12.00	4.94	4.00	4.20	4.00	----
Eastern States 12-16-12 (43)	*11.70	12.00	16.14	16.00	12.97	12.00	----
AMOS EBY & COMPANY Leamon Place, Pa.							
Challenge 4-8-7 (515)	4.02	4.00	8.48	8.00	8.01	7.00	----
Grass Special 7-6-5 (518)	7.01	7.00	6.17	6.00	6.11	5.00	----
Pequea Ammoniated 1-10-5 (513; 1172)	1.14	1.00	10.50	10.00	5.86	5.00	----
Pequea Economy 2-10-4 (511; 1171)	2.02	2.00	10.40	10.00	4.69	4.00	----
Pequea High Grade 5-6-5 (516)	4.92	5.00	7.04	6.00	5.44	5.00	----
Pequea Special Potato 3-8-7 (517)	2.90	3.00	8.41	8.00	8.09	7.00	----

*Deficient

TABLE III. ANALYSES OF COMPLETE FERTILIZERS—FURNISHING NITROGEN, PHOSPHORIC ACID AND POTASH

MANUFACTURER AND BRAND NAME	NITROGEN		AVAILABLE PHOSPHORIC ACID		POTASH		
	Found	Guar.	Found	Guar.	Found	Guar.	As Muriate
ERIE REDUCTION COMPANY, Erie, Pa.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.
Erie Crop Special (125)	4.87	5.00	10.62	10.00	5.29	5.00	----
Erie Plant Food (124)	3.86	4.00	12.82	12.00	4.02	4.00	----
Erie Potato Special (123)	1.92	2.00	8.17	8.00	10.04	10.00	----
Erie Truck Special (562)	*2.37	4.00	8.36	8.00	7.54	7.00	----
General Crop Special (147)	2.14	2.00	12.93	12.00	2.24	2.00	----
FARMERS FERTILIZER AND FEED CO., Westminster, Md.							
Hi-Grade 2-9-5 (241; 797)	2.14	2.00	9.52	9.00	6.06	5.00	----
Superior 2-12-6 (280; 798)	2.12	2.00	12.55	12.00	6.25	6.00	----
Truckers Delight 4-8-7 (253)	4.02	4.00	7.89	8.00	7.35	7.00	----
FARMERS FERTILIZER WORKS, Elizabethtown, Pa.							
Donegal Plant Food 5-8-6 (10; 1308)	5.10	5.00	8.21	8.00	6.18	6.00	----
Farmers Best Yet 2-8-10 (3; 1075)	2.18	2.00	8.44	8.00	10.30	10.00	----
Farmers Club 3-8-5 (6; 1074)	3.08	3.00	8.34	8.00	5.41	5.00	----
Farmers Gilt Edge Potato and Truck 4-3-7 (8; 620; 820)	4.02	4.00	9.49	8.00	7.39	7.00	----
Farmers I.X.L. 2-12-4 (7; 619; 1071; 1151)	2.23	2.00	12.40	12.00	4.77	4.00	----
Farmers 1-10-5 (9; 618; 818; 1076)	1.22	1.00	10.59	10.00	5.81	5.00	----
Farmers 2-9-5 (4; 750; 1070)	2.28	2.00	9.72	9.00	5.64	5.00	----
Farmers 3-12-5 (2; 622; 1077; 1150)	3.13	3.00	12.56	12.00	5.29	5.00	----
FARMERS SUPPLY CO., Everett, Pa.							
Tecumseh Everett Chief (673)	4.14	4.00	8.31	8.00	*6.30	7.00	----
Tecumseh Everett Pride (672)	2.56	2.00	9.40	9.00	4.92	5.00	----
JOSEPH H. GAWTHROP, Kennett Square, Pa.							
Champion Fertilizer (1114)	1.01	1.00	13.48	13.00	2.19	2.00	----
CHIFFITH & SOYD CO., Baltimore, Md.							
Fish and Potash Guano 2-10-4 (358; 854)	2.08	2.00	10.92	10.00	4.21	4.00	----
Gilt Edge Crop Guano 2-8-10 (415; 599)	2.02	2.00	8.20	8.00	10.61	10.00	----
High Grade Economizer 2-12-6 (830)	2.02	2.00	12.76	12.00	6.81	6.00	----
High Grade Truck Guano 4-8-7 (359; 413; 600)	4.10	4.00	8.28	8.00	7.28	7.00	----
Nitro Crop Feeder 9-5-2 (412)	9.65	9.00	5.26	5.00	2.63	2.00	----
Peerless Fertilizer 1-10-5 (357; 852)	1.02	1.00	10.35	10.00	5.63	5.00	----
Reliable Crop Grower 2-12-4 (418; 601)	2.17	2.00	12.70	12.00	4.94	4.00	----
Reliable Crop Grower 2-12-4 (831)	*1.40	2.00	12.91	12.00	4.61	4.00	----
Special Fish Guano (416)	3.04	3.00	12.37	12.00	*5.57	6.00	----
Special Guano 2-9-5 (294; 420; 813)	2.03	2.00	9.42	9.00	*5.22	5.00	----
Special Potato Fertilizer (414)	3.34	3.00	8.49	8.00	*7.54	8.00	----
HUBBARD FERTILIZER CO., Baltimore, Md.							
Hubbard Jersey Truck 2-8-10 (316)	2.23	2.00	9.40	8.00	*8.72	10.00	----
Hubbard Money Maker 2-9-5 (175; 317; 668)	2.12	2.00	9.46	9.00	5.29	5.00	----
Hubbard Potato 4-8-7 (171; 215; 320)	4.12	4.00	8.35	8.00	7.11	7.00	----
Hubbard Special Brand 4-12-4 (319)	3.82	4.00	12.39	12.00	4.76	4.00	----
Hubbard Special Brand 4-12-4 (173)	*3.73	4.00	12.28	12.00	4.20	4.00	----
Hubbard Fertilizer 1-10-5 (318)	1.24	1.00	10.94	10.00	6.25	5.00	----
Hubbard Fertilizer 2-12-4 (174; 669)	2.40	2.00	12.10	12.00	4.42	4.00	----
Hubbard Fertilizer 2-12-6 (479; 645)	2.16	2.00	12.54	12.00	6.95	6.00	----
Hubbard Fertilizer 4-16-4 (172; 214)	4.20	4.00	16.28	16.00	4.73	4.00	----
INDEPENDENT MANUFACTURING CO., Philadelphia, Pa.							
Independent Consumer 2-8-10 (723; 1238)	2.21	2.00	8.19	8.00	10.24	10.00	----
Independent Consumer 2-9-5 (725; 1110; 1237)	2.19	2.00	9.17	9.00	6.15	5.00	----
Independent Consumer 2-12-4 (1247)	*1.76	2.00	11.96	12.00	4.57	4.00	----
Independent Consumer 3-12-6 (1242)	*2.56	3.00	12.01	12.00	6.30	6.00	----
Independent Consumer 4-8-7 (713; 1236)	4.33	4.00	8.51	8.00	7.62	7.00	----
Independent Consumer 4-12-4 (1241)	4.01	4.00	12.00	12.00	4.37	4.00	----
Independent Consumer 5-8-5 (1243)	5.40	5.00	8.41	8.00	5.47	5.00	----
Independent Consumer 5-8-7 (1245)	5.45	5.00	8.31	8.00	7.38	7.00	----
Independent Consumer 5-10-5 (1244)	5.60	5.00	10.48	10.00	5.00	5.00	----
Independent Standard 3-10-5 (714)	3.34	3.00	10.31	10.00	5.53	5.00	----
Independent Standard 3-10-10 (1249)	3.18	3.00	10.45	10.00	10.09	10.00	----
Independent Standard 4-8-5 (1235)	4.30	4.00	8.00	8.00	5.44	5.00	----
Independent Standard 4-8-5 (1235)	4.31	4.00	8.04	8.00	10.33	10.00	----
Independent Standard 4-8-10 (1248)	5.42	5.00	8.27	8.00	7.00	7.00	----
Independent Standard 5-8-7 (1250)	5.42	5.00	8.55	8.00	5.26	5.00	----
Independent Standard 6-8-5 (726; 1246)	6.48	6.00	8.55	8.00	5.26	5.00	----
Independent Standard Matchless Market Gardener 4-8-7 (1239)	4.26	4.00	8.63	8.00	7.96	7.00	----
Independent Standard Special Wheat Fertilizer 2-12-5 (1112; 1234)	2.27	2.00	12.79	12.00	5.12	5.00	----
INTEHNATIONAL AGRICULTURAL CORPORATION, Buffalo, N. Y.							
International Early Harvest 3-12-6 (396)	3.00	3.00	12.17	12.00	6.42	6.00	----
International Economy 4-16-4 (948)	*3.75	4.00	16.31	16.00	3.84	4.00	----
International Empire 5-10-5 (949)	5.25	5.00	10.76	10.00	5.43	5.00	----
International Garden Truck 4-8-7 (393; 946)	4.37	4.00	8.42	8.00	7.17	7.00	----
International General Crop 2-12-4 (392; 582; 944)	2.04	2.00	12.68	12.00	4.39	4.00	----
International Ideal 2-9-5 (947)	2.07	2.00	9.46	9.00	5.73	5.00	----
International Superior 4-12-4 (941)	4.11	4.00	12.49	12.00	4.57	4.00	----
International Superior 4-12-4 (1198)	*3.32	4.00	12.40	12.00	4.16	4.00	----
International Supreme 2-8-10 (394)	1.88	2.00	8.64	8.00	10.23	10.00	----
KLINE GRAIN CO., Shelocta, Pa.							
Kline's 4-8-7 (746)	*3.76	4.00	8.80	8.00	7.50	7.00	----
KOLLEH FERTILIZER CO., Glen Rock, Pa.							
Hooker's Formule 4-10-4 (274)	4.61	4.00	11.75	10.00	4.19	4.00	----

*Deficient

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MANUFACTURER AND BRAND NAME	NITROGEN		AVAILABLE PHOSPHORIC ACID		POTASH		
	Found	Guar.	Found	Guar.	Found	Guar.	As Muriate
Koller's Corn Special Phosphate 2-12-4 (277; 1053)	1.97	2.00	12.44	12.00	4.57	4.00	----
Koller's Keystone Potato Fertilizer 4-8-7 (272)	4.10	4.00	9.72	8.00	7.77	7.00	----
Koller's Lion Phosphate 2-10-6 (1055)	1.89	2.00	10.39	10.00	6.23	6.00	----
Koller's Producer Phosphate 2-8-10 (279; 1056)	2.03	2.00	8.41	8.00	10.75	10.00	----
Koller's Super Ammoniated Phosphate 2-9-5 (276)	2.02	2.00	9.28	9.00	5.32	5.00	----
Koller's Super Ammoniated Phosphate 2-9-5 (1052)	*1.75	2.00	9.57	9.00	5.37	5.00	----
Koller's Truck and Garden Phosphate 3-8-5 (273)	3.01	3.00	8.92	8.00	5.61	5.00	----
Rellock Lawn and Garden Plant Food 4-12-4 (275)	4.62	4.00	13.13	12.00	4.54	4.00	----
LANCASTER BONE FERTILIZER CO., INC., Quarryville, Pa.							
Coneetoga Harvest Queen 2-9-5 (505; 1192)	2.03	2.00	9.16	9.00	5.43	5.00	----
Coneetoga Lancaster Peerless 2-12-4 (507; 1194)	1.98	2.00	12.46	12.00	4.28	4.00	----
Coneetoga Tractors Special 4-8-7 (506)	4.16	4.00	8.89	8.00	7.19	7.00	----
Coneetoga 2-8-10 (503; 1193)	2.05	2.00	8.33	8.00	10.56	10.00	----
Coneetoga 3-12-5 (509; 1191)	2.95	3.00	12.39	12.00	5.00	5.00	----
LEBANON FERTILIZER WORKS, Lebanon, Pa.							
Levan's 1-10-5 (80; 1088)	1.12	1.00	10.03	10.00	5.34	5.00	----
Levan's 2-8-10 (78; 810; 1091)	2.06	2.00	8.06	8.00	10.22	10.00	----
Levan's 2-9-5 (81; 1086)	2.10	2.00	9.16	9.00	5.30	5.00	----
Levan's 2-12-4 (809; 1085)	2.02	2.00	*12.03	12.00	4.37	4.00	----
Levan's 2-12-4 (77)	2.04	2.00	*11.51	12.00	4.49	4.00	----
Levan's 2-12-6 (75; 1087)	2.09	2.00	12.13	12.00	*5.70	6.00	----
Levan's 2-12-6 (807)	2.01	2.00	12.36	12.00	6.11	6.00	----
Levan's 3-12-6 (74; 808; 1079)	3.12	3.00	12.24	12.00	6.11	6.00	----
Levan's 4-8-7 (76; 806; 1090)	4.04	4.00	8.07	8.00	7.38	7.00	----
Levan's 4-16-4 (1084)	4.24	4.00	16.24	16.00	4.76	4.00	----
Levan's 4-16-4 (72)	4.19	4.00	*15.24	16.00	4.54	4.00	----
Levan's 4-16-10 (1083)	4.23	4.00	16.00	16.00	10.18	10.00	----
Levan's 4-16-10 (71)	4.16	4.00	*15.30	16.00	10.86	10.00	----
Levan's 5-10-5 (79; 1089)	5.14	5.00	10.32	10.00	5.34	5.00	----
FRED E. LORD, Epy, Pa.							
Lord's 2-8-10 (398; 490)	2.12	2.00	8.82	8.00	11.08	10.00	----
Lord's 2-12-4 (488)	2.17	2.00	12.33	12.00	4.11	4.00	----
Lord's 4-8-8 (489)	4.22	4.00	8.49	8.00	9.06	8.00	----
Lord's 5-10-5 (487)	5.06	5.00	10.52	10.00	5.33	5.00	----
FRED MEHRING FERTILIZER WORKS, INC., Keymar, Md.							
Mehring's Early Truck Guano 4-8-7 (793)	4.25	4.00	8.80	8.00	7.17	7.00	----
Mehring's Mammoth Truck Grower 2-9-5 (796)	2.02	2.00	9.51	9.00	5.17	5.00	----
MILLER FERTILIZER CO., Baltimore, Md.							
Miller Fertilizer 1-10-5 (670)	1.05	1.00	9.91	10.00	5.13	5.00	----
Miller Fertilizer 2-8-10 (247; 368; 401; 687)	2.08	2.00	8.35	8.00	11.03	10.00	----
Miller Fertilizer 2-9-5 (59; 400; 435; 463; 1014)	2.14	2.00	9.38	9.00	5.28	5.00	----
Miller Fertilizer 2-12-4 (248; 439; 464; 690)	2.22	2.00	12.26	12.00	4.34	4.00	----
Miller Fertilizer 2-12-6 (245; 480)	2.14	2.00	12.39	12.00	6.93	6.00	----
Miller Fertilizer 3-12-6 (57)	3.04	3.00	12.34	12.00	*5.18	6.00	----
Miller Fertilizer 4-8-7 (56; 385; 437; 689)	4.05	4.00	8.55	8.00	7.26	7.00	----
Miller Fertilizer 4-8-7 (459)	3.90	4.00	8.76	8.00	*6.80	7.00	----
Miller Fertilizer 4-8-10 (250)	*3.59	4.00	8.42	8.00	11.67	10.00	----
Miller Fertilizer 4-12-4 (462; 688)	4.04	4.00	12.17	12.00	4.38	4.00	----
Miller Fertilizer 4-12-4 (436)	*3.70	4.00	11.81	12.00	4.54	4.00	----
Miller Fertilizer 4-16-4 (458)	4.12	4.00	16.16	16.00	4.73	4.00	----
Miller Fertilizer 4-16-4 (249)	4.10	4.00	*15.70	16.00	4.99	4.00	----
Miller Fertilizer 4-16-4 (436)	4.01	4.00	*15.22	16.00	4.86	4.00	----
Miller Fertilizer 5-10-5 (367)	*4.56	5.00	10.09	10.00	5.87	5.00	----
MYERSTOWN FERTILIZER WORKS, Myerstown, Pa.							
Corn and Potato Grower 4-8-5 (378)	*2.63	4.00	8.74	8.00	4.88	5.00	----
Corn and Potato Grower 4-8-5 (1158)	*2.90	4.00	10.34	8.00	5.70	5.00	----
Corn and Potato Grower 4-8-7 (379)	*2.83	4.00	8.68	8.00	*6.44	7.00	----
Corn and Potato Grower 4-8-7 (1159)	*2.71	3.00	10.94	8.00	7.00	7.00	----
Farmers Special 3-10-3 (377)	*2.71	3.00	10.66	10.00	5.76	3.00	----
Farmers Special 3-10-3 (1157)	*2.23	3.00	11.30	10.00	4.31	3.00	----
G. OBER & SONS CO., Baltimore, Md.							
Ober's 2-8-10 Fertilizer (331)	2.34	2.00	8.26	8.00	*9.56	10.00	----
Ober's 2-9-5 Fertilizer (329)	2.13	2.00	9.45	9.00	5.20	5.00	----
Ober's 4-8-7 Fertilizer (30; 328)	4.13	4.00	8.62	8.00	7.13	7.00	----
PENNSYLVANIA FARM BUREAU COOPERATIVE ASSOCIATION, INC., Harrieburg, Pa.							
Farm Bureau 4-8-7 (313)	4.04	4.00	8.53	8.00	7.68	7.00	----
Farm Bureau 4-18-10 (312)	4.01	4.00	18.77	18.00	10.42	10.00	----
RASIN-MONUMENTAL CO., Baltimore, Md.							
Rasin's Comet Grain and Grass Grower 2-12-4 (364)	2.05	2.00	12.32	12.00	4.65	4.00	----
Rasin's National Crop Compound (1013)	1.10	1.00	10.44	10.00	5.90	5.00	----
Rasin's Royal Fish and Potash Mixture 2-9-5 (363; 615; 811; 1012)	2.06	2.00	9.75	9.00	5.49	5.00	----
Rasin's Vegetable Special 2-8-10 (365)	2.42	2.00	8.31	8.00	10.30	10.00	----
*Deficient							

TABLE III. ANALYSES OF COMPLETE FERTILIZERS—FURNISHING NITROGEN, PHOSPHORIC ACID AND POTASH

MANUFACTURER AND BRAND NAME	NITROGEN		AVAILABLE PHOSPHORIC ACID		POTASH		
	Found	Guar.	Found	Guar.	Found	Guar.	As Muriate
READING BONE FERTILIZER CO., Reading, Pa.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.
Reading All Crop Special (660; 1282)	2.16	2.00	10.19	10.00	5.92	6.00	----
Reading 2-8-10 (658)	2.03	2.00	8.58	8.00	10.67	10.00	----
Reading 2-8-10 (225)	2.11	2.00	8.63	8.00	*9.42	10.00	----
Reading 2-8-10 (1127)	2.01	2.00	8.64	8.00	*9.60	10.00	----
Reading 2-9-5 (230; 877)	1.95	2.00	9.23	9.00	5.21	5.00	----
Reading 2-12-5 (231; 662; 878)	2.11	2.00	12.17	12.00	5.52	5.00	----
Reading 3-12-5 (661)	3.24	3.00	12.63	12.00	5.45	5.00	----
Reading 4-8-7 (224)	3.84	4.00	8.45	8.00	7.00	7.00	----
Reading 4-8-7 (659)	*3.51	4.00	8.68	8.00	6.90	7.00	----
Reading 5-8-5 (229)	*4.74	5.00	8.38	8.00	5.09	5.00	----
ROBERT A. REICHARD, INC., Allentown, Pa.							
Reichard's Animal Base 2-9-5 (1099; 1278)	2.15	2.00	9.19	9.00	4.99	5.00	----
Reichard's Animal Base 2-12-4 (779; 1279)	2.20	2.00	12.22	12.00	4.28	4.00	----
Reichard's Animal Base 3-10-6 (550)	3.04	3.00	10.13	10.00	6.56	6.00	----
Reichard's Animal Base 4-8-8 (551; 1277)	4.16	4.00	8.20	8.00	8.12	8.00	----
Reichard's Animal Base 5-8-7 (552)	5.02	5.00	8.07	8.00	7.28	7.00	----
F. S. ROYSTER GUANO CO., Baltimore, Md.							
Royster's Arrow Truck Guano 6-6-5 (468)	6.00	6.00	6.17	6.00	5.31	5.00	----
Royster's Banner Guano 2-8-10 (112; 153; 555; 594; 648; 684; 773; 1124)	2.06	2.00	8.44	8.00	10.39	10.00	----
Royster's Big Bully Guano 2-9-5 (114; 154; 208; 371; 596; 647; 674; 740; 980; 994; 1125; 1286)	2.06	2.00	9.36	9.00	5.33	5.00	----
Royster's Curlew Guano 3-12-6 (206; 556; 995; 1123)	3.02	3.00	12.50	12.00	6.43	6.00	----
Royster's Fonda Guano 5-10-5 (115; 630; 676)	5.11	5.00	10.39	10.00	5.67	5.00	----
Royster's Gem Guano 2-12-4 (185; 202; 372; 654; 677; 775; 979; 997; 1126; 1237)	2.07	2.00	12.38	12.00	4.25	4.00	----
Royster's Jim Dandy Guano 2-12-2 (203)	2.22	2.00	12.42	12.00	2.76	2.00	----
Royster's Prize Guano 4-8-10 (1122)	4.02	4.00	8.25	8.00	10.14	10.00	----
Royster's Quality Trucker 4-8-7 (186; 207; 548; 557; 629; 675; 733; 774; 991)	4.05	4.00	8.42	8.00	7.50	7.00	----
Royster's Surety Guano 1-10-5 (370; 646; 741; 992)	1.04	1.00	10.31	10.00	5.56	5.00	----
Royster's Trojan Guano 4-12-4 (116; 152; 469)	4.10	4.00	12.59	12.00	4.21	4.00	----
Royster's 2-12-6 Fertilizer (113; 656; 776; 996; 1117)	2.07	2.00	12.84	12.00	6.45	6.00	----
Royster's 4-16-4 Fertilizer (205; 546; 597)	4.09	4.00	16.32	16.00	4.34	4.00	----
Royster's 4-16-10 Fertilizer (547)	4.23	4.00	17.01	16.00	10.64	10.00	----
Royster's 10-16-14 Fertilizer (1199)	10.02	10.00	16.11	16.00	14.19	14.00	----
CHARLES H. SEIBERT, Myerstown, Pa.							
Grade #1 2-10-5 (1162)	2.05	2.00	10.23	10.00	5.89	5.00	----
Grade #2 2-8-10 (1160)	1.87	2.00	8.79	8.00	11.03	10.00	----
Grade #2 2-8-10 (380)	1.86	2.00	*7.54	8.00	10.20	10.00	----
Grade #3 2-12-6 (1161)	2.10	2.00	12.16	12.00	7.85	6.00	----
Grade #4 4-8-7 (1163)	*3.74	4.00	8.38	8.00	8.36	7.00	----
Grade #5 4-16-10 (1164)	3.93	4.00	17.04	16.00	11.75	10.00	----
SHIPPENSBURG FERTILIZER CO., Shippensburg, Pa.							
Old Reliable Bt Special 3-12-6 (890)	*1.70	3.00	11.81	12.00	7.47	6.00	----
Old Reliable Commonwealth Brand 1-10-5 (22; 891)	1.31	1.00	10.41	10.00	5.89	5.00	----
Old Reliable Tip Top 2-9-5 (20)	2.09	2.00	9.14	9.00	5.12	5.00	----
Old Reliable Tip Top 2-9-5 (893)	*1.75	2.00	9.32	9.00	6.63	5.00	----
M. L. SHOEMAKER & CO., INC., Philadelphia, Pa.							
Shoemaker's Swift Sure 1-10-5 (1219)	1.27	1.00	10.27	10.00	6.48	5.00	----
Shoemaker's Swift Sure 2-8-10 (523; 720; 1220)	2.17	2.00	8.09	8.00	10.81	10.00	----
Shoemaker's Swift Sure 2-9-5 (525; 721; 1218)	2.11	2.00	9.13	9.00	5.24	5.00	----
Shoemaker's Swift Sure 2-10-4 (707; 1222)	2.28	2.00	10.17	10.00	4.67	4.00	----
Shoemaker's Swift Sure 2-12-4 (1227)	2.26	2.00	11.91	12.00	4.45	4.00	----
Shoemaker's Swift Sure 3-10-3 (722)	3.03	3.00	10.12	10.00	3.31	3.00	----
Shoemaker's Swift Sure 3-10-6 (1217)	3.18	3.00	10.14	10.00	6.02	6.00	----
Shoemaker's Swift Sure 3-12-6 (1223)	3.14	3.00	11.92	12.00	6.03	6.00	----
Shoemaker's Swift Sure 4-8-7 (719; 1224)	3.98	4.00	8.20	8.00	7.45	7.00	----
Shoemaker's Swift Sure 4-8-7 (521)	4.13	4.00	*7.59	8.00	7.61	7.00	----
Shoemaker's Swift Sure 5-8-5 (1225)	5.29	5.00	8.03	8.00	5.32	5.00	----
Shoemaker's Swift Sure 5-8-7 (526)	4.82	5.00	7.85	8.00	7.43	7.00	----
Shoemaker's Swift Sure 5-10-8 (1280)	5.11	5.00	10.21	10.00	8.06	8.00	----
THE SMITH AGRICULTURAL CHEMICAL CO., Columbus, Ohio							
Sacco 2-12-2 (731)	2.22	2.00	12.14	12.00	2.11	2.00	----
Sacco 2-12-6 (727)	2.11	2.00	12.08	12.00	6.16	6.00	----
Sacco 4-8-7 (728)	3.87	4.00	8.06	8.00	7.12	7.00	----
Sacco 4-12-4 (729)	4.03	4.00	12.27	12.00	4.79	4.00	----
SOMERSET COUNTY FERTILIZER WORKS, INC., Somerset, Pa.							
Beaver Brand Fertilizer 1-10-5 (971)	1.05	1.00	10.16	10.00	5.21	5.00	----
Beaver Brand Fertilizer 2-8-10 (634; 973)	2.08	2.00	8.58	8.00	11.45	10.00	----
Beaver Brand Fertilizer 2-9-5 (631; 694; 970)	2.39	2.00	9.29	9.00	5.97	5.00	----
Beaver Brand Fertilizer 2-12-4 (693; 972)	2.12	2.00	12.55	12.00	4.68	4.00	----
Beaver Brand Fertilizer 2-12-6 (968)	2.06	2.00	11.96	12.00	6.48	6.00	----

TABLE III. ANALYSES OF COMPLETE FERTILIZERS—FURNISHING NITROGEN, PHOSPHORIC ACID AND POTASH

MANUFACTURER AND BRAND NAME	NITROGEN		AVAILABLE PHOSPHORIC ACID		POTASH		
	Found	Guar.	Found	Guar.	Found	Guar.	As Muriate
	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.
Beaver Brand Fertilizer 4-8-7 (635)	4.59	4.00	8.99	8.00	7.42	7.00	----
Beaver Brand Fertilizer 4-8-10 (632)	4.05	4.00	9.00	8.00	10.30	10.00	----
STANDARD WHOLESALE PHOSPHATE AND ACID WORKS, Baltimore, Md.							
Standard Dissolved Animal Base Fertilizer 2-8-10 (453)							
Standard Dissolved Animal Base Fertilizer 2-12-4 (454)	2.49	2.00	8.81	8.00	*9.59	10.00	----
Standard 2-9-5 (529)	2.22	2.00	12.11	12.00	4.75	4.00	----
Standard 3-5-12 (531)	2.00	2.00	9.58	9.00	5.41	5.00	----
Standard 4-8-7 (528)	2.91	3.00	5.58	5.00	12.54	12.00	----
Standard 5-8-7 (527)	4.08	4.00	8.19	8.00	7.16	7.00	----
	5.01	5.00	8.17	8.00	7.43	7.00	----
SUMMERS FERTILIZER CO., Baltimore, Md.							
2-8-10 Fertilizer (432; 1290)	1.97	2.00	8.23	8.00	10.41	10.00	----
2-9-5 Fertilizer (433; 1291)	2.06	2.00	9.14	9.00	5.39	5.00	----
2-12-4 Fertilizer (148; 428; 1289)	2.28	2.00	12.10	12.00	4.93	4.00	----
3-12-6 Fertilizer (149)	3.62	3.00	12.23	12.00	7.44	6.00	----
4-8-7 Fertilizer (431)	4.02	4.00	8.45	8.00	7.29	7.00	----
4-16-4 Fertilizer (430; 1294)	4.20	4.00	16.57	16.00	4.69	4.00	----
SWACKS FERTILIZER CO., DuBois, Pa.							
Swack's 2-8-10 (841)	1.83	2.00	8.37	8.00	9.98	10.00	----
Swack's 2-8-10 (735)	2.03	2.00	9.00	8.00	*9.39	10.00	----
Swack's 2-9-5 (338; 736; 842; 1296)	1.99	2.00	9.27	9.00	5.41	5.00	----
Swack's 2-9-5 (678)	*1.72	2.00	9.39	9.00	5.70	5.00	----
Swack's 2-12-2 (679)	1.86	2.00	12.27	12.00	2.68	2.00	----
Swack's 2-12-4 (340; 680)	2.13	2.00	12.09	12.00	4.58	4.00	----
Swack's 3-12-6 (683; 1295)	3.01	3.00	12.04	12.00	5.44	6.00	----
Swack's 3-12-6 (341)	2.95	3.00	12.01	12.00	*5.68	6.00	----
Swack's 4-8-5 (682)	*3.76	4.00	8.23	8.00	6.06	5.00	----
Swack's 4-8-7 (336; 737)	3.96	4.00	8.59	8.00	7.07	7.00	----
Swack's 4-12-4 (342; 681)	4.16	4.00	12.35	12.00	4.83	4.00	----
SWIFT & COMPANY, FERTILIZER WORKS, Baltimore, Md.							
Swift's Red Steer 1-10-5 (351; 965)	1.33	1.00	10.38	10.00	5.22	5.00	----
Swift's Red Steer 2-8-10 (99; 142; 639; 1188)	2.12	2.00	8.35	8.00	10.42	10.00	----
Swift's Red Steer 2-9-5 (100; 145; 350; 536; 641; 699; 849; 960; 1185; 1284)	2.08	2.00	9.22	9.00	5.46	5.00	----
Swift's Red Steer 2-12-2 (576)	2.02	2.00	*11.74	12.00	2.29	2.00	----
Swift's Red Steer 2-12-4 (101; 539; 638; 1119; 1183)	2.15	2.00	12.15	12.00	4.47	4.00	----
Swift's Red Steer 2-12-6 (1184)	2.19	2.00	12.19	12.00	*5.76	6.00	----
Swift's Red Steer 3-12-6 (103; 143; 804; 964)	3.17	3.00	12.52	12.00	6.27	6.00	----
Swift's Red Steer 4-8-4 (403)	*3.79	4.00	8.61	8.00	5.65	4.00	----
Swift's Red Steer 4-8-4 (534)	*3.79	4.00	8.43	8.00	5.43	4.00	----
Swift's Red Steer 4-8-7 (349; 535; 564; 640; 698; 1096)	4.07	4.00	8.31	8.00	*6.33	7.00	----
Swift's Red Steer 4-8-7 (739)	*3.61	4.00	10.37	8.00	*6.74	7.00	----
Swift's Red Steer 4-8-7 (847)	*3.76	4.00	8.23	8.00	4.36	4.00	----
Swift's Red Steer 4-12-4 (579; 848)	4.09	4.00	12.19	12.00	4.40	4.00	----
Swift's Red Steer 4-12-4 (961)	*3.79	4.00	12.08	12.00	4.35	4.00	----
Swift's Red Steer 4-16-4 (578)	4.17	4.00	18.66	16.00	7.08	7.00	----
Swift's Red Steer 5-8-7 (402)	5.01	5.00	8.65	8.00	*4.74	5.00	----
Swift's Red Steer 5-10-5 (1189)	4.88	5.00	10.09	10.00	8.48	8.00	----
Swift's Red Steer 5-13-8 (144)	5.26	5.00	13.69	13.00			----
Swift's Red Steer Tobacco Grower 4-6-6 (533)	3.91	4.00	6.34	6.00	6.96	6.00	----
Vigoro 4-12-4 (580)	4.26	4.00	12.22	12.00	4.31	4.00	----
TENNESSEE CORP., New York, N. Y.							
Loma (1276)	5.17	5.00	10.26	10.00	4.96	4.00	----
I. P. THOMAS & SON CO., Camden, N. J. or Philadelphia, Pa.							
I. P. Thomas 2-8-10 (553)	2.22	2.00	8.30	8.00	10.69	10.00	----
Tip Top Fertilizer 3-10-6 (554)	3.00	3.00	10.05	10.00	8.61	6.00	----
Victor Potash Fertilizer 2-9-5 (800)	2.14	2.00	9.91	9.00	5.61	5.00	----
F. W. TURNELL & CO., INC., Philadelphia, Pa.							
Nassau Potato Manure (709)	3.94	4.00	8.03	8.00	5.63	5.00	----
Tunnell's 2-8-10 (1229)	2.20	2.00	8.02	8.00	10.63	10.00	----
Tunnell's 2-9-5 (1233)	2.32	2.00	9.21	9.00	5.55	5.00	----
Tunnell's 2-10-6 Fish Brand (1230)	2.22	2.00	10.14	10.00	6.18	6.00	----
Tunnell's 2-12-4 (1231)	2.29	2.00	12.05	12.00	4.57	4.00	----
Tunnell's 3-12-6 (1232)	3.37	3.00	*11.53	12.00	6.66	6.00	----
Two Fold Produce Manure 4-16-4 (712)	4.02	4.00	16.04	16.00	4.15	4.00	----
Virginia Potato Manure 6-6-5 (710)	6.01	6.00	6.23	6.00	5.50	5.00	----
Wizard All Crop 4-8-10 (711)	4.00	4.00	8.45	8.00	10.09	10.00	----
VIRGINIA-CAROLINA CHEMICAL CORPORATION, Baltimore, Md.							
V-C Double Owl Brand 4-8-7 (308; 545; 591; 614)	3.90	4.00	8.47	8.00	7.56	7.00	----
V-C Double Owl Brand 4-8-7 (158)	*3.68	4.00	8.09	8.00	7.14	7.00	----
V-C Fertilizer 4-6-6 Cottonseed Formula (542)	3.89	4.00	6.45	6.00	6.60	6.00	----
V-C Fish and Potash Compound 2-9-5 (309; 543; 553; 843; 869; 1155)	2.04	2.00	9.45	9.00	5.64	5.00	----
V-C 2-12-4 Fertilizer (508; 1011; 1156)	2.11	2.00	8.14	8.00	10.60	10.00	----
V-C 2-12-6 Fertilizer (592; 616)	2.12	2.00	12.27	12.00	4.67	4.00	----
V-C 2-12-6 Fertilizer (160; 612; 868)	1.96	2.00	12.64	12.00	6.16	6.00	----
V-C 3-12-6 Fertilizer (607; 867)	2.99	3.00	11.98	12.00	6.62	6.00	----
V-C 3-12-6 Fertilizer (1154)	4.04	4.00	8.22	8.00	*9.52	10.00	----
V-C 4-8-10 Fertilizer (611)	3.94	4.00	12.12	12.00	4.11	4.00	----
V-C 4-12-4 Fertilizer (611)	4.21	4.00	16.20	16.00	4.29	4.00	----
V-C 4-16-4 Fertilizer (1153)	*4.27	5.00	11.04	10.00	5.41	5.00	----
V-C 5-10-5 Fertilizer (593)							

*Deficient

TABLE III. ANALYSES OF COMPLETE FERTILIZERS—FURNISHING NITROGEN, PHOSPHORIC ACID AND POTASH

MANUFACTURER AND BRAND NAME	NITROGEN		AVAILABLE PHOSPHORIC ACID		POTASH		
	Found	Guar.	Found	Guar.	Found	Guar.	As Muriate
	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.
YORK CHEMICAL WORKS, York, Pa.							
Dempwolf's General Crop 3-12-6 (264; 407; 865; 1038)	3.10	3.00	12.31	12.00	6.89	6.00	----
Dempwolf's Grain Special 2-12-2 (255; 1036)	2.02	2.00	11.93	12.00	2.47	2.00	----
Dempwolf's High Test 8-16-14 (269)	8.00	8.00	16.16	16.00	15.64	14.00	----
Dempwolf's Potato and Truck 5-8-7 (298)	4.81	5.00	8.27	8.00	7.66	7.00	----
Dempwolf's Potato and Truck 5-8-7 (271)	*4.76	5.00	8.40	8.00	7.51	7.00	----
Dempwolf's Potato and Truck 5-8-7 (404)	*4.72	5.00	8.48	8.00	7.73	7.00	----
Dempwolf's Spring Special 2-8-10 (257; 296; 1030)	1.97	2.00	8.17	8.00	10.86	10.00	----
Dempwolf's Standard 2-9-5 (259; 297; 864; 1029)	2.06	2.00	9.31	9.00	5.31	5.00	----
Dempwolf's Standard Potash 1-10-5 (1041)	1.15	1.00	10.85	10.00	5.11	5.00	----
Dempwolf's Standard Potash 1-10-5 (262)	1.04	1.00	*9.51	10.00	5.23	5.00	----
Dempwolf's Top Dresser 6-6-5 (268; 409; 1035; 1098)	6.04	6.00	6.52	6.00	5.38	5.00	----
Dempwolf's 2-12-4 (255; 1032)	2.11	2.00	12.11	12.00	4.61	4.00	----
Dempwolf's 4-8-7 (254; 405; 1028)	4.11	4.00	8.15	8.00	7.36	7.00	----
Dempwolf's 4-12-4 (263; 1031)	4.05	4.00	12.16	12.00	4.97	4.00	----
Dempwolf's 4-16-10 (270; 410; 1033)	4.14	4.00	16.09	16.00	11.24	10.00	----
Dempwolf's 5-10-5 (146; 265)	5.03	5.00	10.64	10.00	5.67	5.00	----
Dempwolf's 5-10-5 (408)	*4.42	5.00	10.82	10.00	5.59	5.00	----
Average	3.06	----	10.56	-----	6.37	----	----

* Deficient

TABLE IV. GROUND BONE FERTILIZERS—FURNISHING NITROGEN AND PHOSPHORIC ACID

MANUFACTURER AND BRAND NAME	NITROGEN		PHOSPHORIC ACID	
	Found	Guar.	Found	Guar.
	P. ct.	P. ct.	P. ct.	P. ct.
ACME GUANO CO., Baltimore, Md. Acme Raw Bone (1108)	3.73	3.70	23.00	20.00
THE AMERICAN AGRICULTURAL CHEMICAL CO., New York, N. Y. Fine Ground Bone (135; 1261)	2.83	2.47	25.40	23.00
Pure Raw Bone (1273)	4.00	3.70	21.00	20.00
BAUGH & SONS CO., Baltimore, Md. Baugh's Pure Steamed Bone Meal (1214)	2.67	2.47	23.40	23.00
Baugh's Raw Bone Meal (706; 1207)	3.85	3.70	21.68	21.50
THE DAVISON CHEMICAL CO., Baltimore, Md. Fine Bone Meal (27; 889)	2.67	2.47	25.25	23.00
Pure Raw Bone (60; 212)	4.54	3.70	20.95	20.00
GRIFFITH & BOYD CO., Baltimore, Md. Pure Fine Ground Bone Meal (295; 361)	4.19	3.70	22.10	20.00
INDEPENDENT MANUFACTURING CO., Philadelphia, Pa. Independent's Special Florists Bone Meal (1113)	2.69	2.47	25.80	23.00
P. S. ROYSTER GUANO CO., Baltimore, Md. Royster's Raw Bone Meal (210; 1116)	4.23	3.70	22.70	20.60
M. L. SHOEMAKER & CO., INC., Philadelphia, Pa. Shoemaker's Swift Sure Raw Bone Meal (520)	4.16	3.70	22.50	20.00
STANDARD WHOLESALE PHOSPHATE AND ACID WORKS, Baltimore, Md. Standard Raw Bone Meal (530)	3.62	3.70	24.50	23.00
SWIFT & COMPANY, Baltimore, Md. Swift's 2½ and 26 High Quality Bone Fertilizer (127)	2.58	2.25	26.80	26.00
Average	3.58	----	23.32	----

TABLE V. SUPERPHOSPHATE AND LIME PHOSPHATE FERTILIZERS—FURNISHING PHOSPHORIC ACID

MANUFACTURER AND BRAND NAME	PHOSPHORIC ACID					
	Total		Available		Insoluble	
	Found	Guar.	Found	Guar.	Found	Guar.
	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.
<u>SUPERPHOSPHATE FERTILIZERS</u>						
ACME GUANO CO., Baltimore, Md.						
Acme 16% Superphosphate (1043; 1104)			16.32	16.00		
Acme 16% Superphosphate (284)			*15.45	16.00		
Acme 20% Superphosphate (292; 1107)			20.52	20.00		
THE AMERICAN AGRICULTURAL CHEMICAL CO., New York, N. Y.						
AA Superphosphate 16% (61; 133; 178; 200; 391; 424; 665; 783; 845; 858; 902; 930; 1263; 1304)			16.60	16.00		
AA Superphosphate 20% (64; 201; 901; 1262)			20.67	20.00		
Lister's Superphosphate 16% (524)			16.20	16.00		
ARMOUR FERTILIZER WORKS, Baltimore, Md.						
Armour's Big Crop Superphosphate 16% (38; 190; 325; 386; 561; 836; 922; 957; 998; 1093; 1299)			16.37	16.00		
Armour's Big Crop Superphosphate 20% (36; 322; 837; 927; 958)			20.48	20.00		
BALTIMORE FERTILIZER CO., Baltimore, Md.						
Ronest 16% Superphosphate (23; 918)			17.04	16.00		
BAUGH & SONS CO., Baltimore, Md.						
Baughphos The Ideal 16% Superphosphate (191; 345; 388; 782; 897; 988; 1068; 1283)			16.49	16.00		
Baughphos The Ideal 18% Superphosphate (1115)			18.09	18.00		
Baughphos The Ideal 20% Superphosphate (603; 1210)			20.52	20.00		
HERBERT BRYANT, INC., Alexandria, Va.						
16% High Grade Acid Phosphate (1135)			17.94	16.00		
20% Highest Grade Acid Phosphate (1137)			20.00	20.00		
CENTRAL CREMICAL CO., INC., Baltimore, Md.						
Gro-All Dissolved Phosphate 16% (86; 333; 651; 105B)			16.69	16.00		
Gro-All Dissolved Phosphate 20% (251)			20.13	20.00		
COOPERATIVE G.L.F. MILLS INC., Buffalo, N. Y.						
G.L.F. Superphosphate 16% (107; 179; 560; 785; 789; 873; 937)			17.30	16.00		
G.L.F. Superphosphate 32% (567; 586; 871; 936)			33.12	32.00		
THE DAVISON CHEMICAL CO., Baltimore, Md.						
Davison Superphosphate 16% (19; 117; 834; 888; 895)			16.58	16.00		
Davison Superphosphate 20% (744; 896)			20.57	20.00		
Davco Superphosphate 20% (1141)			21.60	20.00		
Davco Granulated Superphosphate 20% (1069)			20.33	20.00		
Gro-All Dissolved Phosphate 16% (765; 1094)			16.37	16.00		
Gro-All Dissolved Phosphate 20% (764)			20.65	20.00		
Hubbard Superphosphate 16% (748; 1254)			16.32	16.00		
Hubbard Superphosphate 20% (747; 1252)			20.43	20.00		
Miller 16% Superphosphate (802; 1021)			16.29	16.00		
Miller 20% Superphosphate (1019)			20.43	20.00		
Ober's 16% Superphosphate (1177)			16.02	16.00		
Ober's 20% Superphosphate (1178)			20.24	20.00		
EASTERN STATES FARMERS EXCHANGE, Springfield, Mass.						
Eastern States Superphosphate 20% (44; 915)			20.53	20.00		
Eastern States Double Superphosphate 40% (916)			40.48	40.00		
AMOS EBY & CO., Leaman Place, Pa.						
Eby Superphosphate 16% (514; 1173)			16.41	16.00		
FARMERS FERTILIZER & FEED CO., Westminster, Md.						
Superphosphate 16% (242)			15.94	16.00		
FARMERS FERTILIZER WORKS, Elizabethtown, Pa.						
Farmers Acid Phosphate 16% (5; 621; 819; 1073; 1152)			16.47	16.00		
Farmers Acid Phosphate 20% (1072)			21.88	20.00		
GRIFFITH & BOYD CO., Baltimore, Md.						
High Grade 16% Acid Phosphate (360; 417; 853)			16.40	16.00		
HUBBARD FERTILIZER CO., Baltimore, Md.						
Hubbard Superphosphate 16% (223)			16.87	16.00		
INDEPENDENT MANUFACTURING CO., Philadelphia, Pa.						
Independent's Superphosphate 16% (1111)			16.50	16.00		
INTERNATIONAL AGRICULTURAL CORPORATION, Buffalo, N. Y.						
International 16% Superphosphate (395; 583; 945)			16.26	16.00		
International 20% Superphosphate (943)			20.34	20.00		
KLINE GRAIN CO., Shelocta, Pa.						
Kline's 16% Acid Phosphate (745)			16.30	16.00		
KOLLER FERTILIZER CO., Glen Rock, Pa.						
Koller's High Grade Superphosphate 16% (27B; 1057)			16.67	16.00		
LANCASTER BONE FERTILIZER CO., Quarryville, Pa.						
Conestoga Superphosphate 16% (504; 1195)			16.70	16.00		
Conestoga Superphosphate 20% (508)			20.96	20.00		

*Deficient

TABLE V. SUPERPHOSPHATE AND LIME PHOSPHATE FERTILIZERS—FURNISHING PHOSPHORIC ACID

MANUFACTURER AND BRAND NAME	PHOSPHORIC ACID					
	Total		Available		Insoluble	
	Found P. ct.	Guar. P. ct.	Found P. ct.	Guar. P. ct.	Found P. ct.	Guar. P. ct.
LEBANON FERTILIZER WORKS, Lebanon, Pa. Levan's Superphosphate 16% (82; 1092) Levan's Superphosphate 20% (70; 1082)			17.03 21.18	16.00 20.00		
FRED E. LORD, INC., Espy, Pa. Lord's Superphosphate 16% (491)			17.26	16.00		
THE FREDERICK MEHRING FERTILIZER WORKS, INC., Keymar, Md. Mehring's Superphosphate 16% (794)			16.58	16.00		
MILLER FERTILIZER CO., Baltimore, Md. Miller 16% Superphosphate (53; 478) Miller 20% Superphosphate (55; 440)			16.56 20.76	16.00 20.00		
G. OBER & SONS CO., Baltimore, Md. Ober's Superphosphate 16% (29; 332) Ober's Superphosphate 20% (330)			16.23 20.56	16.00 20.00		
READING BONE FERTILIZER CO., Reading, Pa. 16% Clear Acid Phosphate (227; 657; 879) 20% Clear Acid Phosphate (226)			16.51 21.37	16.00 20.00		
ROBERT A. REICHARD, INC., Allentown, Pa. Reichard's Famous 16% Acid Phosphate (778; 1281)			17.17	16.00		
F. S. ROYSTER GUANO CO., Baltimore, Md. Royster Superphosphate 16% (187; 209; 595; 743; 978; 1118; 1288) Royster Superphosphate 20% (204; 558; 628; 742; 977; 1120)			16.65 20.87	16.00 20.00		
M. L. SHOEMAKER & CO., INC., Philadelphia, Pa. Shoemaker's Swift Sure 16% Superphosphate (708; 1221)			16.48	18.00		
THE SMITH AGRICULTURAL CHEMICAL CO., Columbus, Ohio Smith's Sacco 20% (730; 839)			20.69	20.00		
SOMERSET COUNTY FERTILIZER WORKS, Somerset, Pa. Beaver Brand Fertilizer 16% (969)			16.24	16.00		
STANDARD WHOLESALE PHOSPHATE AND ACID WORKS, INC., Baltimore, Md. Standard 16% Superphosphate (456)			16.96	16.00		
SUMMERS FERTILIZER CO., Baltimore, Md. 16% Superphosphate (434) 20% Superphosphate (150; 429; 1293)			16.76 20.89	16.00 20.00		
SWACK FERTILIZER CO., DuBois, Pa. Swack's Superphosphate 16% (337; 1297) Swack's Superphosphate 20% (339)			16.54 21.01	16.00 20.00		
SWIFT & COMPANY, Baltimore, Md. Swift's Red Steer Superphosphate 16% (102; 348; 541; 565; 738; 781; 963; 1187; 1285)			16.66	16.00		
VIRGINIA-CAROLINA CHEMICAL CORPORATION, Baltimore, Md. V-C 16% Superphosphate (161; 812; 844) V-C 20% Superphosphate (610; 833)			17.14 20.33	16.00 20.00		
YORK CHEMICAL WORKS, York, Pa. Dempwolf's Superphosphate 16% (258; 406; 784; 866; 1042) Dempwolf's Superphosphate 20% (261; 1039)			17.15 21.00	16.00 20.00		
Average			18.25	-----		
<u>LIME PHOSPHATE FERTILIZERS</u>						
ACME GUANO CO., Baltimore, Md. Acme Lime Phosphate 16% (285)			16.01	16.00		
THE AMERICAN AGRICULTURAL CHEMICAL CO., New York, N. Y. AA Basic Lime Phosphate 16% (825; 898)			16.31	16.00		
ARMOUR FERTILIZER WORKS, Baltimore, Md. Armour's Big Crop Lime Phosphate 16% (37; 921)			16.41	16.00		
BAUGR & SONS CO., Baltimore, Md. Baugh's Lime and Phosphate (302; 447; 587)			16.45	16.00		
CARLISLE FERTILIZER WORKS, INC., Carlisle, Pa. Carlisle Lime Phosphate 16% (13; 882)			16.06	16.00		
CENTRAL CHEMICAL CO., INC., Baltimore, Md. Gro-All Carbo Lime Phosphate (84)			16.20	16.00		
THE DAVISON CHEMICAL CO., Baltimore, Md. Gro-All Carbo Lime Phosphate 16% (1166) Miller Lime and Phosphate 16% (1022)			16.68 16.54	16.00 16.00		
LEBANON FERTILIZER WORKS, Lebanon, Pa. Levan's Lime Phosphate (73; 1080)			16.52	16.00		
MILLER FERTILIZER CO., Baltimore, Md. Miller 16% Lime and Phosphate (671; 874)			16.15	16.00		

TABLE V. SUPERPHOSPHATE AND LIME PHOSPHATE FERTILIZERS—FURNISHING PHOSPHORIC ACID

MANUFACTURER AND BRAND NAME	PHOSPHORIC ACID					
	Total		Available		Insoluble	
	Found P. ct.	Guar. P. ct.	Found P. ct.	Guar. P. ct.	Found P. ct.	Guar. P. ct.
VIRGINIA-CAROLINA CHEMICAL CORPORATION, Baltimore, Md. V-C 16% Phosphate and Lime Mixture (366; 613)			16.47	16.00		
YORK CHEMICAL WORKS, York, Pa. Dempwolf's Lime Phosphate 16% (267; 1040)			16.91	16.00		
Average			16.40	-----		

TABLE VI. ROCK AND POTASH FERTILIZERS—FURNISHING PHOSPHORIC ACID AND POTASH

MANUFACTURER AND BRAND NAME	AVAILABLE PHOSPHORIC ACID		POTASH		
	Found	Guar.	Found	Guar.	As Muriate
ACME GUANO CO., Baltimore, Md. Acme 0-12-5 (282; 1049; 1103)	P. ct. 12.30	P. ct. 12.00	P. ct. 5.44	P. ct. 5.00	P. ct. ----
THE AMERICAN AGRICULTURAL CHEMICAL CO., New York, N. Y.					
AA Victory Mixture 0-12-5 (65; 306; 495; 822; 906)	12.36 9.93 12.08	12.00 10.00 12.00	5.50 11.02 5.10	5.00 10.00 5.00	---- ---- ----
AA XXX Mixture 0-10-10 (932)					
Lieter's Atlas Mixture 0-12-5 (522)					
ARMOUR FERTILIZER WORKS, Baltimore, Md. Sig Crop 0-12-6 Fertilizer (35; 926)	12.50	12.00	5.28	5.00	----
BALTIMORE FERTILIZER CO., Baltimore, Md. Honest 0-12-5 (15; B85)	12.56	12.00	6.21	5.00	----
BAUGH & SONS CO., Philadelphia, Pa. Baugh's Phosphate and Potash Mixture 0-12-5 (300; 71B; 754)	12.21	12.00	5.59	5.00	----
Baugh's Phosphate and Potash Mixture 0-10-10 (1212)	10.15	10.00	10.90	10.00	----
CENTRAL CHEMICAL CO., INC., Baltimore, Md. Gro-All Potash Special 0-12-5 (122; 243; 649)	12.16	12.00	5.48	5.00	----
Gro-All Potash Special 0-12-5 (1063)	*11.4B	12.00	5.82	5.00	----
Gro-All 0-10-10 (485)	10.45	10.00	10.65	10.00	----
COOPERATIVE G.L.F. MILLS, INC., New York, N. Y.					
G.L.F. 0-14-6 (104)	15.57	14.00	6.62	6.00	----
THE DAVISON CHEMICAL CORP., Baltimore, Md. Davco Granulated Homogeneous Fertilizer 0-12-5 (1015; 1026)	12.16 11.96 10.2B	12.00 12.00 10.00	5.27 5.90 10.03	5.00 5.00 10.00	---- ---- ----
Gro-All Potash Special 0-12-5 (1148)	10.2B	10.00	10.03	10.00	----
Miller Fertilizer 0-10-10 (1143)	12.27	12.00	5.12	5.00	----
Miller Fertilizer 0-12-5 (1020)	12.16	12.00	5.18	5.00	----
Ober's 0-12-5 Fertilizer (1179)					
EASTERN STATES FARMERS EXCHANGE, Springfield, Mass.					
Eastern States 0-14-6 (50)	14.71	14.00	6.86	6.00	----
Eastern States 0-20-20 (42; 912)	20.34	20.00	21.33	20.00	----
Eastern States 0-2B-12 (41; 914)	28.50	28.00	13.00	12.00	----
AMOS EBY & CO., Leaman Place, Pa. Eby Farmers Mixture 0-12-5 (512; 1174)	12.50	12.00	5.47	5.00	----
FARMERS FERTILIZER & FEED CO., Westminster, Md.					
Superphosphate and Potash 0-12-5 (240; 799)	12.45	12.00	5.19	5.00	----
FARMERS' FERTILIZER WORKS, Elizabethtown, Pa.					
Farmers Phosphate and Potash 0-12-5 (1; 1076)	12.4B	12.00	5.21	5.00	----
HUBBARD FERTILIZER CO., Baltimore, Md. Hubbard Alkaline 0-12-5 (484)	12.16	12.00	5.61	5.00	----
INTERNATIONAL AGRICULTURAL CORP., Buffalo, N. Y.					
International Super and Potash 0-12-5 (950)	12.40	12.00	6.37	5.00	----
KOLLER FERTILIZER CO., Glen Rock, Pa. Koller's 0-12-5 Electric Phosphate (1054)	12.24	12.00	5.09	5.00	----
LANCASTER BONE FERTILIZER CO., Quarryville, Pa.					
Conestoga 12-5 (510)	12.24	12.00	5.45	5.00	----
Conestoga 12-5 (1190)	12.14	12.00	*4.50	5.00	----
LEBANON FERTILIZER WORKS, Lebanon, Pa. Levan's 0-12-5 (69; 1081)	12.00	12.00	5.60	5.00	----
FRED E. LORD, Espy, Pa. Lord's 0-12-5 (488)	12.74	12.00	5.60	5.00	----
MILLER FERTILIZER CO., Baltimore, Md. Miller Fertilizer 0-12-5 (54; 4B3)	12.76 11.45	12.00 10.00	5.2B 11.50	5.00 10.00	---- ----
Miller Fertilizer 0-10-10 (246)					
G. OBER & SONS CO., Baltimore, Md. Ober's 0-12-5 Fertilizer (2B)	12.23	12.00	5.35	5.00	----
READING BONE FERTILIZER CO., Reading, Pa.					
Reading Phosphate and Potash 0-12-5 (228; B76)	12.50	12.00	5.12	5.00	----
F. S. ROYSTER GUANO CO., Baltimore, Md. Royster's 0-12-5 Phosphate and Potash (369; 59B; 655; 993; 1121)	12.42	12.00	5.15	5.00	----
SHIPPENSBURG FERTILIZER CO., Shippensburg, Pa.					
Old Reliable Valley Special 0-12-5 (21; B92)	12.27	12.00	7.10	5.00	----
THE SMITH AGRICULTURAL CHEMICAL CO., Columbus, Ohio					
Sacco 0-12-5 (732)	11.98	12.00	5.87	5.00	----
SOMERSET COUNTY FERTILIZER WORKS, INC., Somerset, Pa.					
Beaver Brand 0-12-5 (633; 974)	11.96	12.00	5.33	5.00	----

*Deficient

TABLE VI. ROCK AND POTASH FERTILIZERS—FURNISHING PHOSPHORIC ACID AND POTASH

MANUFACTURER AND BRAND NAME	AVAILABLE PHOSPHORIC ACID		POTASH		
	Found	Guar.	Found	Guar.	As Muriate
SUMMERS FERTILIZER CO., INC., Baltimore, Md. 0-12-5 Fertilizer (427; 1292)	P. ct. 12.15	P. ct. 12.00	P. ct. 5.74	P. ct. 5.00	P. ct. ----
SWIFT & COMPANY FERTILIZER WORKS Baltimore, Md. Swift's Red Steer 0-12-5 (352; 532; 642; 827; 962; 1186)	12.43	12.00	5.36	5.00	----
VIRGINIA-CAROLINA CHEMICAL CORPORATION, Baltimore, Md. V-C 0-12-5 Fertilizer (159; 362; 544; 609; 652; 870)	12.45	12.00	5.84	5.00	----
YORK CHEMICAL WORKS, York, Pa. Dempwolf's 10-10 (266)	10.56	10.00	10.51	10.00	----
Dempwolf's 12-5 (260; 1037)	12.50	12.00	5.46	5.00	----
Average	12.70	----	6.49	----	----

TABLE VII. MISCELLANEOUS FERTILIZERS

MANUFACTURER AND BRAND NAME	NITROGEN				PHOSPHORIC ACID						POTASH	
	Found		Guar.		Total		Available		Insoluble		Found	Guar.
	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.
<u>NITRATE OF SODA</u>												
THE BARRETT COMPANY, New York, N. Y.												
Arcadian the American Nitrate of Soda (126; 734)												
CHILEAN NITRATE SALES CORPORATION, New York, N. Y.												
Champion Brand Chilean Nitrate of Soda (216; 419; 1268)												
Average	16.11	16.00										
<u>MURIATE OF POTASH</u>												
THE AMERICAN AGRICULTURAL CHEMICAL CO., New York, N. Y.												
A. A. Muriate of Potash (1272)											51.04	50.00
<u>MISCELLANEOUS</u>												
AMERICAN CYANAMID COMPANY, New York, N. Y.												
Aero Cyanamid (222)	21.38	21.00										
Aero Cyanamid (397)	21.68	22.00										
Aero Cyanamid (1259)	20.98	22.00										
HERBERT BRYANT COMPANY, Alexandria, Va.												
H. B. 16% Phosphate and Tobacco (1136)							16.87	16.00				
EASTERN STATES FARMERS EXCHANGE, Springfield, Mass.												
Celnitro (51)	20.64	20.50										
SEWERAGE COMMISSION, Milwaukee, Wis.												
Milorganite Fertilizer (1274)	6.09	6.00			2.75	2.75	2.07	2.00	0.68	0.75		
TENNESSEE CORPORATION, New York, N. Y.												
Soil-Prep (Rumus) (1275)	4.44	4.00					2.12	2.00			2.71	2.00
*Deficient												

